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The Italian Geographers' Document on the University Education of Future Primary School Teachers

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Abstract

This article describes an important document compiled by a group of Italian geographers who teach in the Teaching Sciences faculty. Twenty-two university professors in an online community debated concepts and compared ideas in order to establish content, methods and didactic approaches to be applied when training Primary School teachers (pupils aged 3-10 yrs.) at Italian University to teach geography. The geographers involved started from an analysis of the recent scholastic reform, they discussed the theoretical aspects from the point of view of the current geographical debate and they decided upon the most efficient didactic approaches for training teachers and teaching geography to pupils. To this end, it was necessary to give considerable thought to the epistemological statutes relating to geography and to more active teaching methods, moving away from an approach based on descriptions and lists, the likes of which are no longer sufficient for understanding today's world.

Keywords: geography teacher training, epistemology, pedagogy competence, geography curriculum, primary schools, Italy.

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Introduction

This article aims to describe the changes being made in Italy to the university training of Primary School teachers, referring to the themes and objectives of the document compiled by the Geographers' Coordination Group, comprising of 22 Italian university professors.

As in many other countries, Italy's education system, teacher training and recruitment schemes have seen important reforms in the last few years. *Curriculum Guidelines* (The Ministry for Public Education, 2007) for Primary and Secondary Schools (5 to 13 yrs.) were approved in 2007 and are still undergoing modification. These guidelines have brought about considerable change to the curriculum: it is no longer just about lists of information and skills which have been rigidly broken down for scholastic year. The curriculum now talks about a learning path which will help develop the competences stipulated by EU regulations (*Key competences for lifelong learning*, 2006). This requires a teaching method which puts the students at the center of the teaching process and as a result the teachers need to receive different training (Mentz, 2010). In addition, there is a new normative law pertinent to teacher training, promulgated with Decree-Law 249/2010. Academic year 2011-2012 will see the launch of Italy's new five-year degree course in Primary School Education and it was time to design a training program capable of renewing the concept of the discipline and its teaching. As Artvinli (2010) said in reference to the same situation in Turkey, "what are the best and new student-centered methods? How can we start to apply them? These are all the problems facing the new curriculum. It is, therefore, urgent to train the teachers for the new curriculum and new methods of new teaching-learning process.... The problem of teacher training is maybe the most important problem in the new curriculum revolution." (Artvinli, 2010, p. 123).

To answer these questions, Italian geographers qualified in the teaching of geography and geography didactics in the Primary School Education degree set up a working group, the Geography Coordination Group, to outline, from a shared viewpoint, geography training to be developed in the new five-year Primary School Education course due to start in the academic year 2011/2012. This was a rather innovative initiative especially for Italian universities where the choice of topics taught is mainly up to the individual and there is rarely any scientific coordination between institutes to establish what is being taught elsewhere. This approach, which has been used up to now, gives rise to a distinct differentiation and often an imbalance with regards to preparation and, to an even greater extent, with regards to the interests of future teachers: if indeed methodological and epistemological concepts can be applied to any topic, the choice of certain content over others can

lead to a different perception of the subject itself. Here lies the risk of sectionalism which is undesirable (Vallega, 2004) when training teachers. On the other hand, it is more and more common to hear people refer to “geographies” instead of “geography” in attempt to highlight the many branches that contribute to what was once considered a compact and well-defined discipline. Breaking down boundaries is now the order of the day in all disciplines and it is, therefore, important to establish a core curriculum whilst keeping the different branches distinct (Vallega, 2004).

Grouping together geographers, each with their own research agendas but all involved in Primary School Education courses, provided the scene for debate and in-depth comparison (still ongoing), which has led to the compilation of the document on which this paper is based.

Primary School Education Courses and the Growing Interest in Geography Didactics

In accordance with the regulations stipulated by Decree-Law no.249 of 10 September 2010, the new five-year degree course in Primary School Education gives the qualifications for teaching in Infant and Primary Schools. The Decree defines the teaching workshop exercises to activate and the credits awarded to each, and are the same for all institutes. Geography is to be assigned around 60 hours of lectures (8 credits) and 25 hours of geography didactics workshop in which some hours are traditional lessons and the rest are practical exercises.

In Italy, degree courses in Infant and Primary School Education have been available since the 1996/97 academic year, with different statutes and programs for each institution. Geography was taught mainly by professors specialized in human geography, rarely physical geography, and the curriculum used was different for each university. One of the main issues was that a didactic approach to Geography was missing; there was no synchronization between the handling of the theoretical side of geographical topics and the different ways of teaching them. This situation contributed towards an increase in the number of teachers and researchers who turned to researching the application of their subject in schools. Proof of this is the large number of publications on the topic (Giorda, 2011), which have expanded the Italian geography publishing sector; prior to 1997 few titles were available and nearly all of them were collective.

The new element of the 2010 normative law is that part of teaching must be dedicated to didactics: in D.M 249/2010, it is written that “the teaching of each discipline must include a part on the didactics of the discipline itself” and that “the

two schooling levels dealt with by the degree must be taken into account when presenting the school subject. Thus, examples, exercises and didactics proposed must be planned separately for Infant Schools and Primary Schools ". However, ministerial regulations are very generic as far as content is concerned and simply state that a graduate's profile should include knowledge of "elements of physical and human geography".

It was this vagueness, together with the need for one homogeneous training standard at national level, that gave Italian geographers the opportunity to reassess the formative value of discipline knowledge, performing not only a selection process but also an epistemological assessment of knowledge, methods, and the competences that studying geography develops, or contributes to, along with the other school subjects.

Facilitated by the setting up of an online community, the group discussed and agreed upon issues of organization, epistemological foundations, course didactics and the geography workshops due to commence in the next few years in the different institutions. The document was signed by 22 geographers and published in the *Rivista dell' Associazione Italiana Insegnanti di Geografia* (coordination of geographers for courses in Primary School Education, 2011) and on the *Associazione Italiana degli Insegnanti di Geografia* website (www.aiig.it). It is the basis for further discussion in group meetings and in literature in which research, evaluations, ideas and experiments carried out in the different institutions are compared and debated.

The Document of the Coordination of Geographers for Degree Courses in Primary School Education

The document drawn up by the Geographers' Coordination Group provides observations, guidelines and suggestions for the homogeneous training of future geography teachers in Italy. The "general guidelines" offered focus on organizing geography training in such a way that the theoretical part is closely linked to didactics and workshops. This choice is not just significant from a methodological point of view but also from an epistemological perspective. This emphasizes how geographical knowledge and concepts play a key role in the education of the citizen and how they can highlight the trans-scarcity of the concept of a multi-dimensional citizenship (local and global).

Among the epistemological cornerstones, the "study of Geography starting from local space" is not reduced simply to localism, which Gianni Sofri (1997) referred to as "traffic warden geography". Instead, it is considered an indispensable

element for increasing spatial intelligence, developing orientation and understanding how the relationship between human activity and the surrounding environment is interpreted differently depending on the scale of analysis adopted: a local problem can have considerable impact on a larger scale and, vice versa, a global problem can have serious local consequences.

This latter consideration should stimulate the planning of proposals and steps to be taken which may seem insignificant but, in fact, could limit society's sense of impotence which threatens the concept of democratic citizenship and participation. This is why the knowledge of physical and human geography is not merely a description and localization of lists of geographical objects. Such knowledge is necessary in order to interpret and critically analyze spatial and landscape dynamics.

In the part of the document where content examples are given, to counter the vagueness of the Ministerial Decree guidelines, it is suggested that training courses should avoid "any type of encyclopedism, dogmatic description or taxonomical listing". Instead, a systemic and dynamic vision of the environment should be developed as a result of interactions between natural, socio-cultural, economic and political systems. Field trips are, therefore, one of the three practical tools that a geography didactics course should examine more closely alongside "autobiographical description of the individual and collective experience of space and environment" and the more traditional practice of cartography.

The inter-trans-disciplinary nature of geography is highlighted by the document by identifying the most suitable themes for an integrated didactics scheme: "orientation (Astronomy, Mathematics, Physical Education), man-inhabitant's responsibility towards citizenship education (history), social and economic environmental complexity in environmental education and sustainable development (scientific, sociological and psychological fields), cultural development of sense of place (literature, cinema, history of art), the role of new technologies in spatial representation and participation processes (information and communication technology)".

The second part of the document covers the main objectives of geography education which highlight its involvement in developing the critical mind both of the individual and of groups in their interaction with the environment. Particular emphasis is put on the need to stimulate future teachers to understand the consequences of people's actions, the complexity of the modern world and the problems associated with managing Earth space. Obviously, the more traditional objectives are not to be forgotten. These include sustainability and inter-relationships between places, respecting cultural diversity. These are not simply

theoretical aims; they must become competences integrated through development. In fact, the teacher's own didactic practice must (via methods, tools and language) enable the students to exercise free-judgment and have a critical vision of the relationships that each of us contribute towards building on a daily basis with the space, landscape and environment, both on a local and global scale.

As clearly explained, the geography workshop is the heart of training tomorrow's teachers if it manages to:

- Suitably represent spatial complexity (both from an objective-rational and subjective-existential point of view);
- Assign authentic and referable learning exercises to real situations
- Propose many points of view about the real world
- Stimulate reflection and meta cognition;
- Favor the development of knowledge as shared property.

Geography and Citizenship

The work produced by the Coordination Group of Italian Geographers refers to the research and publications of the members of the group (Giorda, 2011, p.36), it takes into account recent debates on the teaching of geography (Tilbury, Michael, 2002; Donert, Charzynski, 2005) and international literature on spatial competences and the role of geography in the curriculum (Gerber, 2003; Bednarz&Bednarz, 2004; King, 2006; Hanson Thiem, 2008; Winter 2009).

The three main aims are:

- 1) Provide guidelines for the organization of knowledge associated with the concept of space, meaning the product of interaction between natural, socio-cultural, economic and political systems. In such a way, geographical space becomes inhabited space and each society negotiates the rules to manage resources and to develop individual and community life projects.
- 2) Include the student's living space in the curriculum activities, promoting participated observation, awareness of the link they have with their living space and the active participation in environmental life as a way to learn about citizenship.
- 3) Promote a more comprehensive study of Italy, developing the geographical competence of spatial thinking on different levels, decentralizing the individual point of view and identifying geographical relationships on a cross-border, European and global scale.

From a didactics point of view, the document emphasizes the importance of “getting experience” in method and geographical language by exploring real and codified spaces and by coming into contact with the sources, documents and authentic materials in order to develop a geography training program which takes into account the associated educational needs.

Regarding competences, explicit reference is made to the ability to discuss and debate geographical problems (IGU, 2000; IGU, 2006; Haubrich, Reinfried, Schleicher, 2007). This is an especially important aspect as, contrary to the well-established approach adopted in other countries such as France and the UK, in Italian schools, scholastic didactics is still based on argumentative and descriptive textbooks which present the topics without debating them.

The document goes on to distinguish between the two educational levels. Infant School, where there is no distinction between the different disciplines, is considered the place where a child’s spatial dimension is taught. Orientation is not to be considered simply as geometric fact, but also as a cultural understanding of one’s own living space and, therefore, intrinsic to forming personal and social identity. The document suggests starting with the individual’s living space and the exploration of their own territorial reality, focusing on aspects such as the link between food and local tradition.

For the five years of Primary School, the document explains the need to teach geographical skills which can be used for the analysis of specific problems or regional issues. Reference to the principal concepts and tools of geography therefore aims at developing geographical themes on different scales, from local to global, focusing on educational aspects such as sustainability, intercultural and socio-spatial diversity.

This may all seem very ambitious, perhaps excessively complex and far afield from the current National Guidelines of the Ministry of Public Education. It is important, however, to note that the Coordination Group of geographers is talking about the training of future teachers. These students will graduate in five years and, therefore, will be working in schools in the decades to come. For this reason, competences and knowledge needed in Italian schools regarding geography in the future rather than the present are focused on.

Didactics and Epistemology

Geography didactics is not simply about developing systems for spreading knowledge. Interdisciplinary competences are required for general didactics and for

all fields of geography. It is necessary to constantly ask oneself what is geography? What are the conditions needed to achieve geographical scientific knowledge? And what are the methods, language and internal organization required to acquire such knowledge? Epistemological considerations are a key part of the work of those dealing with disciplinary didactics. This aspect is particularly evident in the recent studies of Italian geographers working in the field of didactics (Giorda, 2006; Squarcina, 2009; Malatesta, 2010; Giorgio & Spinelli, 2010; De Vecchis, 2011).

Re-reading the discipline, defining competences, syllabus planning, the analysis of sources and documents, experimentation and research into learning programs and establishing evaluation parameters are all part of the attempt to identify and unify the different concepts of the discipline, questioning their operation, validity and their applicability to real cases and problems.

Whilst often not the case for the academic researcher, a teacher needs to have a 360° understanding of all aspects of geography, linking “the network of close relationships which form places....on larger geographical scales, up to a global scale” (Dematteis, 2008, p.1). In fact, this may be the most important competence that the study of geography helps develop. Being aware of the relationships involved in one's own living space on different scales should be one of the main aims of geography education. A strategic competence for individual and social life: it allows one to nurture interests make decisions, develop projects and take action, intentionally interacting with places, cultures and economies which may lie great distances apart but, nonetheless, share contiguity and a co-evolutionary relationship.

Thoroughly understanding, interpreting and linking information is the basis of a geographer's skill. Every good geographical analysis involves the ability to contextualize, to identify analogies, to communicate ideas, analyze situations, ask the question “Why?” and to hypothesize how to overcome problems (Golledge, 2002). Geography didactics is about providing intricate cultural mediation, a social plan in which knowledge and learning programs must take into account the student: a person learns about himself and the world through knowledge (Dematteis, 2004).

The traditional idea that geography is the synthesis of lots of specialist information can be likened to the concept of the ecological mind (Bateson, 1989) or “interconnecting” (Morin, 2000). In order to place geography in the system of inter-poly-transdiscipline knowledge (ibid.) for the future development of teaching, the focus must be moved from knowledge to method. This is the step that differentiates didactics from pedagogy and renders epistemological consideration one of its most significant investigative themes (Ashley, 2000; Tilbury, Michael, 2002; D'Amore, 2007).

Understanding that everything in geographic space is connected, leads one to realize that the living conditions of human communities on the planet are not down to chance events but depend on the human species' ability to interact with itself and with the planet's resources.

What geography is taught and how it is to be taught is essential for the destiny of the human race. If "geography is destiny" (De Blij, Murphy A, 2002, p.3), teaching geography is a way to become aware of this "destiny" and inspire decisions that will guide evolution.

Geography Education and Teaching

The Italian geographers' coordination document puts a great deal of emphasis on the educational importance of geographical knowledge. Citizenship education is the principal aim of a school, as all Italian ministerial documents say, but it cannot be taught correctly without teaching geography (Giorda, Puttilli, 2011). This means teaching teachers to teach and teaching students to consider the sustainability of choices concerning the environment and cultural and social dynamics. Geographical knowledge can only but help in reaching this fundamental goal (Morgan, 2006; Reinfried, Schleicher, Rempfler, 2007; Gryl, Jekel, Donert, 2010).

If we make the concept of place the focal point of geography teaching, this entails focusing on social cohesion and the ability to conscientiously develop, via the school, shared practices of citizenship (Giorda & Puttilli, 2011). This educative value can be particularly evident in geography didactics for Infant and Primary Schools where children are in a phase of cognitive development and experience (local scale) and learning are closely linked (Malatesta, 2010).

The research carried out by geographers who teach geography in the new degree courses in Primary School Education coincided with research into values for the same geography, this was an area of negotiation and reconstruction of the discipline's statute via scientific validation training. However, Italian geography needs to align itself more with international research which has given rise to many magazines (such as *Teaching Geography*), specific considerations (Wiegand, 2002, Martin, 2006), collective documents (IGU, 2000, 2006, Haubrich, Reinfried, Schleicher, 2007) and didactics experiments (Coban, *et al.*, 2011).

Especially urgent was the development of ways to present geography topics using a problem-solving approach (Spronken-Smith, 2005; Beringer, 2007) , an essential step if we are to move away from the encyclopedic imprint – it should be noted many Italian school textbooks are still predominantly characterized by lists of

information. The document compiled by the coordination of geographers for degree courses in Primary School Education represents significant progress in this direction by discussing foundations, objectives and competences of geography education.

The geographers confirmed contemporary complexity can no longer be reduced to lists and taxonomies: they recommended immediate attention should be given to relationships, flows and connections among which geographical concepts can act as regulators. The concept of the ecosystem “*Human-Earth*” (Haubrich, Reinfried & Schleicher, 2007) could therefore be the starting point from which the geographic vision of links between environment, economy and society can be rebuilt.

Conclusions

The value of the work carried out by the Coordination Group of Geographers for degree courses in Primary School Education was that it provided comprehensive guidelines for the homogeneous training of Italian Primary School teachers and the work has not ended there. It has started off an exchange of exercises and group discussions on themes and problems pertinent to geography research and didactics: this involved monitoring the results and developments that didactics activity stimulates at all levels of teaching.

One of the main advantages of the work is that it has opened up significant debate on the importance of Geography to education and on the ways it should be taught. To yield significant results, changes to university teaching have been recommended. In the future, research development is needed and it will be necessary to facilitate and promote discussion and idea-sharing and scientific publications regarding international research in spatial literacy and its application to teaching.

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The Document of the Coordination of Geographers for Degree Courses in Primary School Education, Conclusions

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References

- Artvinli, E. (2010). 2005 Curriculum reform in Turkey and a case of Geography. *Revista de Pedagogie*, 58(3), 111- 125.
- Ashley, K. (Ed). (2000). *Reflective Practice in Geography Teaching*, London: Paul Chapman.
- Bateson, G. (1989). *Verso un'ecologia della mente*, Milano: Adelphi.
- Bednarz, R. S., Bednarz, S. W. (2004). Geography Education: The Glass Is Half Full and It's Getting Fuller, *The Professional Geographer*, 56 (3), 22–27.
- Beringer, J. (2007). Application of Problem Based Learning through Research Investigation, *Journal of Geography in Higher Education*, 31(3), 445 – 457.
- Çoban, G. Ü., Akpınar, E., Küçükçankurtaran, E., Yıldız, E., Ergin, Ö. (2011). Elementary school students' water awareness, in IGU – International Geographical Union, *International Research in Geographical and Environmental Education*, London, Routledge, 20 (1), 65 – 83.
- Recommendation 2006/962/EC of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning [Official Journal L 394 of 30.12.2006].
- Coordinamento dei Geografi per i corsi di laurea in Scienze della Formazione Primaria, (2011). Osservazioni, raccomandazioni, suggerimenti per gli 8+1 cfu di geografia *Ambiente Società Territorio*, 3, 36- 39.

D'Amore, B. (2007). Epistemologia, didattica della matematica e pratiche d'insegnamento, *La matematica e la sua didattica*, 21 (3), 347-369.

De Blij, H. J., Murphy, A. (2002). *Geografia umana. Cultura, società, spazio*. Bologna: Zanichelli.

Dematteis, G. (2004). Per insegnare una geografia dei valori e delle trasformazioni territoriali, *Ambiente Società e Territorio*, 5, 10-14.

Dematteis, G. (2007). Il vero geografo è l'insegnante, discorso pronunciato a Potenza durante il Convegno Nazionale AIIG 2007 in occasione della premiazione a Socio d'Onore. Retrived in www.aiig.it.

De Vecchis, G., Staluppi, G. (2007). *Insegnare geografia*. Torino: Utet.

De Vecchis, G. (Ed). (2011). *A scuola senza geografia?* Roma: Carocci.

Donert, K., Charzynski, P. (eds.) (2005). *Changing Horizons in Geography Education*. Torun: Herodot/Association of Polish Adult Educators.

Gerber, R. (Ed). (2004). *International Handbook on Geographical Education*, Dordrecht: Kluwer Academic Publishers.

Giorda C. (2006). *La geografia nella scuola primaria. Contenuti, strumenti, didattica*, Roma: Carocci.

Giorda C. (2011). L'insegnamento della Geografia e della Didattica della geografia nel nuovo Corso di Laurea in Scienze della formazione primaria. *Ambiente Società Territorio*, 3, 33-36.

Giorda, C., Puttilli M. (Eds.). (2011). *Educare al territorio – educare il territorio. La geografia per la formazione*. Roma: Carocci.

Giorgio, A., Spinelli, G. (2010), *Per una concettualizzazione del sapere geografico*, Bari: Cacucci.

Golledge, R.G. (2002). The Nature of Geographic Knowledge, *Annals of the Association of American Geographers*, 92 (1), 1-14

Gryl, I., Jekel, T., Donert, K. (2010). GI and Spatial Citizenship. In T. Jekel, K. Donert, A. Koller (Eds.), *Learning with GeoInformation*, (pp. 2-12). Berlin: Wichman Verlag (cfr. in: http://lhu.academia.edu/KarlDonert/Papers/520691/GI_and_Spatial_Citizenship)

- Hanson Thiem, C. (2009). Thinking through education: the geographies of contemporary educational restructuring, *Progress in Human Geography*, 33(2), 154-173.
- Haubrich, H., Reinfried, S., Schleicher, Y. (2007). Lucerne Declaration on Education for Sustainable Development. In S. Reinfried, Y. Schleicher, G. Rempfler (Eds.), *Geographycal Views on Education for Sustainable Development*, (p. 243-250). Lucerne: IGU-UGI
- IGU (2000). International Geographical Union, *International Declaration on Geographical Education*, 2000. Retrived in www.igu-cge.org
- IGU (2006). International Geographical Union, *The International Charter on Geographical Education*, Revised Edition 2006, Retrived in www.igu-cge.org.
- King, H. (2006). Understanding spatial literacy: Cognitive and curriculum perspectives. *Planet* 17, 26-28.
- Malatesta, S. (2010). *Per fare l'albero ci vuol la carta*. Milano: Guerini.
- Martin, F. (2006). *Teaching Geography in Primary Schools: Learning to live in the world*. Cambridge: Chris Kington Publishing.
- Mentz, O. (2010). The european challenge – How to integrate european competences in Geography in Higher education, *European Journal of Geography*, 2010(1), 6-14.
- Ministero della Pubblica Istruzione (2007). *Indicazioni per il curriculum, per la scuola dell'infanzia e per il primo ciclo d'istruzione*. Available from http://www.pubblica.istruzione.it/normativa/2007/allegati/dir_310707.pdf.
- Morgan, J. (2006). Discerning Citizenship in Geography Education, *The GeoJournal Library*, 85(C), 213-226.
- Morin, E. (2000). *La testa ben fatta, riforma dell'insegnamento e riforma del pensiero*. Milano: Cortina.
- Reinfried, S., Schleicher, Y., Rempfler, A. (Eds.). (2007). Geographical Views on Education for Sustainable Development, *Proceedings Lucerne-Symposium*, Lucerne: IGU – UGI.
- Rocca, L. (2007). *Geo-scoprire il mondo*. Lecce: Pensa Multimedia.

Schmidt di Friedberg, M. (Ed.). (2010). *Cos'è il mondo? È un globo di cartone*. Milano: Unicopli.

Spronken-Smith, R. (2005). Implementing a Problem-Based Learning Approach for Teaching Research Methods in Geography, *Journal of Geography in Higher Education*, 29(2), 203-221.

Squarcina, E. (2007). *Un mondo di carta e di carte*. Milano: Guerini.

Squarcina, E. (Ed.). (2009). *Didattica critica della geografia*. Milano: Unicopli.

Sofri, G. (1997). Le ragioni della Geografia. *Diario*, (II, 48), 13-17.

Tilbury, D., Michael, W. (Eds.). (2002). *Teaching and learning Geography*, London: Routledge.

Vallega, A. (2004). *Le grammatiche della geografia*. Bologna: Paton.

Wiegand, P. (2002). Assesment in the primary school. In D. Tilbury, M. Williams, (Eds.), *Teaching and Learning Geography* (pp.266-274), London and New York: Routledge.

Winter, C. (2009). Geography and Education I: the state of health of Geography in schools, *Progress in Human Geography*, 33(5), 667-676.